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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/514,141	02/28/2000	Man-Chun Tse	13313	9149

7590 12/31/2003

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New Haven, CT 06510-2802

EXAMINER

LAO, LUN S

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 12/31/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/514,141

Applicant(s)

TSE ET AL.

Examiner

Lun-See Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Introduction

1. Claims 1-11 of U.S. application 09/514,141 filed on 02-28-2000 are presented for examination.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 12/22/1999. It is noted, however, that applicant has not filed a certified copy of the 2,293,076 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Gliebe (US PAT. 5,478,199).

Consider claim 1 Gliebe teaches a method for suppressing noise having a primary tone from a noise source within a duct housing comprising:

Generating (see fig.1, 36a, 36b and 30(outlet guide vanes (OGV) or stator vanes)) an exciting sound wave having a primary frequency generally different from a frequency of the primary tone of the noise (see col.5 lines 15-46), and

modulating the primary tone of the noise (blade pass frequency (BPF)) using the generated exciting sound wave to excite within the duct housing a fluid medium (26) in which a sound wave of the noise propagates so that sound energy of the noise is re-

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distributed from the frequency of the primary tone to a broad range of side bands and the amplitude of the primary tone of the noise is reduced (see col. line 15-col.6 line 67).

Consider claims 2-3, Gliebe teaches the fluid medium is air (see fig.1, 26); and the exciting sound wave is generated by a force of a fluid flow acting on a mechanical device (see fig.1, 30 outlet guide vanes (OGV) or stator vanes) and col.5 lines 15-46).

Consider claim 4, Gliebe teaches a noise attenuation system for suppressing noise having a primary tone from a noise source comprising:

an elongated housing (see fig.1, 10) surrounding the noise source, the housing having a first (26) and second (18) openings on opposite ends, wherein the a sound wave from the noise source propagates in air outwardly towards the first (26) and second (18) openings; and

an exciting sound wave generator (see fig.1, 36a, 36b and 30(outlet guide vanes (OGV) or stator vanes)) associated with the housing, the generator (see fig.1, 36a, 36b and 30(outlet guide vanes (OGV) or stator vanes)) generating an exciting sound wave having a primary frequency generally different from a frequency of the primary tone of the noise (blade pass frequency (BPF)) to excite the air within the housing and modulate the primary tone of the noise so that sound energy of the noise is re-distributed from the frequency of the primary tone to a broad range of side bands and the amplitude of the primary tone of the noise is reduced (see ol.5 line 15-col.6 line 67).

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Consider claims 5-6, Gliebe teaches the exciting sound wave generator (see fig.1, 36a, 36b and 30 (outlet guide vanes (OGV) or stator vanes)) is positioned on an inner wall of the housing; and the exciting sound wave generator comprises a mechanical device (see fig.1,30 and fig.3,30) excited by a force of air flow to generate the exciting sound wave (see col.5 lines 15-46).

Consider claim 7 Gliebe teaches a noise attenuation system for suppressing noise having a primary tone from a jet engine comprising:

a nacelle (see fig.1, 22) surrounding the jet engine (16), the nacelle (22) having an inlet (24b) and an outlet (24c) for receiving and exhausting air flow respectively, wherein a sound wave of the noise produced from the jet engine (16) propagates outwardly towards the inlet (24b) and outlet (24c); and

an exciting sound wave generator (see fig.1, 36a, 36b and 30 (outlet guide vanes (OGV) or stator vanes)) associated with the nacelle (22), generating an exciting sound wave having a primary frequency generally different from a frequency of the primary tone of the noise (blade pass frequency (BPF)) to excite the air flow in the nacelle (22) and modulate the primary tone of the noise so that sound energy of the noise is re-distributed from the frequency of the primary tone to a broad range of side bands and the amplitude of the primary tone of the noise is reduced (see col.5 line 15-col.6 line 67).

Consider claims 8-9, Gliebe teaches the exciting sound wave generator (see fig.1, 36a, 36b and 30 (outlet guide vanes (OGV) or stator vanes)) is positioned on an inner wall of the nacelle (22) at the inlet; and the exciting sound wave generator

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(see fig.1, 36a, 36b and 30 (outlet guide vanes (OGV) or stator vanes)) comprises a mechanical device (30) excited by a force of air flow to generate the exciting sound wave (see fig.3, 30 and col.5 lines 15-46).

Consider claims 10-11, Gliebe teaches the mechanical device (see fig.1, 30 and fig.3, 30) comprises a fence member (a plurality of circumferentially spaced apart outlet guide vanes (OGVs), or stator vanes 30 extend radially between outer and inner duct walls 24a,d) exposed to the air flow entering the inlet (24b) of the nacelle (22); and the mechanical device (see fig.1, 30 and fig.3, 30) comprises an aperture defined in the inner wall, an air flow jetting from the aperture into the nacelle (22 and see col.5lines 15-46).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burdisson (US PAT 5,515,444); Zwernemann (US PAT. 5,821,472) and Andersson (US PAT. 5,692,702) are cited to show other the fan and compressor noise attenuation.

7. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington.

VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner


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should be directed to Lao,Lun-See whose telephone number is (703) 305-2259. The examiner can normally be reached on Monday-Friday from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached on (703) 305-4708.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (703) 306-0377.

Lao,Lun-See
Patent Examiner
US Patent and Trademark Office
Crystal Park 2
(703305-2259)


DUC NGUYEN
PRIMARY EXAMINER